

REMARKS

Pursuant to 37 C.F.R. §1.111, reconsideration of the instant application, as amended herewith, is respectfully requested.

Entry of the amendment is requested.

Claims 1-3 and 5 are presently pending before the Office. Claim 4 has been canceled. Applicants have amended Claims 1-3 and 5. No new matter has been added. Support for the amendments can be found throughout the specification as originally filed. Applicant is not intending in any manner to narrow the scope of the originally filed claims.

The Examiner's Action mailed October 11, 2000 (Paper No. 9) and the references cited therein have been carefully studied by Applicants and the undersigned counsel. The amendments appearing above and these explanatory remarks are believed to be fully responsive to the Action. Accordingly, this important patent application is believed to be in condition for allowance.

PROOF OF AUTHORITY OF LEGAL REPRESENTATIVE

Applicants previously filed a proof of authority in the above-referenced application regarding the legal representative of deceased inventor Mr. Izuo Aoki. Pursuant to 37 C.F.R. §1.44, effective September 8, 2000, proof of authority of the legal representative of a deceased inventor (37 C.F.R. §1.42) is no longer required in any application, regardless of the filing date of the application. The declaration, filed on June 23, 1999 clearly indicates that Mrs. Midori Aoki is the legal representative of Izuo Aoki as required by 37 C.F.R. §1.44.

REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Relying on 35 U.S.C. §112, second paragraph, the Office has rejected the subject matter of Claims 1-5 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner alleges that there is no clear line of demarcation between the tetrakisphenol and the compound which reacts with the epoxy group or an epoxy resin. Applicants respectfully traverse the rejection and request reconsideration.

Applicant submits that Claims 1-5 do define the legal metes and bounds of the invention. It is not the role of the claims to enable one skilled in the art to reproduce the invention but rather to define, for those skilled in the art the legal metes and bounds of the invention. Nevertheless, in order to advance the case to allowance, Claim 4 has been canceled without prejudice, Claims 1-3 and 5 have been amended to indicate that the compound which reacts with the epoxy group of the epoxy resin to cure the resin is a compound other than the tetrakisphenol compound and to clarify the antecedent basis for each claim limitation.

It is respectfully submitted that Claims 1-3 and 5 fully comply with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. §102(b)

Relying on 35 U.S.C. §102(b), the Examiner has rejected the subject matter of Claim 1 as being anticipated by Asai et al. and

JP Pat. Nos. 5-105739 and 7-173089. The Examiner alleges that Claim 1 merely defines a tetrakisphenol and epoxy-reactive compound without the affirmative presence of an epoxy resin. Applicants respectfully traverse the rejection and request reconsideration.

It appears that the Examiner has mischaracterized Claim 1. Originally filed Claim 1 clearly sets forth the affirmative presence of an epoxy resin. Specifically, Claim 1 requires "a compound which reacts with the epoxy group of an epoxy resin." In addition, Claim 1 has been amended to indicate that a clathrate compound other than the tetrakisphenol compound reacts with the epoxy groups of the epoxy resin.

Further, Applicants respectfully submit that it is important to note that, historically, the Office and the Federal Circuit has required that for a §102 anticipation, a single reference must teach (i.e., identically describe) each and every element of the rejected claim. The Office has steadfastly and properly maintained that view.

The Asai et al. reference fails this test. Asai et al. disclose a clathrate but do not teach the use of the clathrate for epoxy resin curing. Further, Asai et al. does not teach, disclose or suggest that the clathrate is present in the resin in a range of from 0.001 to 0.1 mole based on 1 mole of the epoxy group. In contrast, the present invention clearly sets forth use of the clathrate for the epoxy resin curing wherein clathrate is present in the resin in a range of from 0.001 to 0.1 mole based on 1 mole of the epoxy group. Accordingly, each and every

element of Applicants' claims have not been taught in that single reference.

JP 5-105739 also fails this test. JP 5-105739 discloses a tetraphenol ethan compound, not a tetrakisphenol. Further, no clathrate is disclosed.

Likewise, JP 7-173089 fails this test. JP 7-173089 discloses a tetrakisphenol compound, however, no clathrate is disclosed.

In other words, the rejected claims do not read literally on any single item of prior art because none of these references teach, disclose or suggest a tetrakisphenol and a clathrate compound other than the tetrakisphenol compound which reacts with the epoxy groups of the epoxy resin. Accordingly, Applicants respectfully submit that Claim 1 is not been anticipated by Asai et al. or JP 5-105739 or 7-173089 under 35 U.S.C. §102(b), and respectfully request that such rejections be withdrawn.

Relying on 35 U.S.C. §102(b), the Examiner has rejected the subject matter of Claims 1-3 as being anticipated by U.S. Patent Nos. 4,246,162 and 4,668,718 and Koike et al. Each of these references shows compositions comprising an epoxy resin, a tetrakisphenol and an imidazole accelerator. The Examiner alleges that the tetrakisphenol is encompassed by both the claimed tetrakisphenol and epoxy-reactive compound since it contains phenolic groups which react with epoxy groups. Applicants respectfully traverse the rejection and request reconsideration.

As stated above for a §102 anticipation, a single reference must teach (i.e., identically describe) each and every element of the rejected claim. None of the references cited by the Examiner do this. Specifically, U.S. Patent No. 4,246,162 discloses a tetraphenol ethan compound, not a tetrakisphenol. Further, no clathrate is disclosed. U.S. Patent No 4,668,718 discloses a tetrakisphenol compound, however, no clathrate is disclosed. ✓ Koike et al. discloses a tetrakisphenol compound and diamines, however, no clathrate is disclosed. Accordingly, none of these references teach, disclose or suggest the present invention. Withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. §103(a)

Relying on 35 U.S.C. §103(a), the Examiner has rejected the subject matter of Claims 1-3 as being unpatentable over the Schreiber patents. The Examiner alleges that although only a tetrakisphenol is exemplified, Schreiber '162 and '718 disclose a mixture of a novolak with an aromatic polyol such as a tetrakisphenol. It is the Examiner's position that it would have been obvious to blend the novolak hardener with the tetrakisphenol in order to increase the hydroxyl equivalent weight of the hardener which enables the use of less novolak. Applicants respectfully traverse the rejection and request reconsideration.

It is evident that Applicants' invention is decidedly different from the teachings of the Schreiber '162 patent and the Schreiber '718 patent. Neither of these patent either alone or

in combination teach, disclose, suggest or even mention clathrates. Accordingly, the Examiner has not established a prima facie case of obviousness.

✓ In particular, the '162 patent and the '718 patent only teach a tetrakisphenol. Clearly, in the absence of any suggestion or teaching whatsoever of clathrates or how one skilled in the art would attempt to combine the tetrakisphenol and novolak hardener of the '162 and '718 patents to produce the composition of the present invention, one skilled in the art would certainly not find ample motivation to use the teachings of the '162 and '718 patents either alone or in combination to arrive at the present invention.

The Office has used the claimed invention as a reference against itself as if it had preceded itself in time. Legal authority invalidates such an analytical or reverse engineering approach to patent examination. It is not Applicants' burden to refute the Office's position that it would have been obvious to one of ordinary skill in this art at the time this invention was made to arrive at the present invention in view of these patents either alone or in combination. It is the burden of the Office to show some teaching or suggestion in the references either alone or in combination to support this allegation. See, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 U.S.P.Q.2d 1434, 1438-39 (Fed. Cir. 1988).

A finding by the Examiner that a claimed structure would have been obvious to one of ordinary skill in the art at the time the invention was made based merely upon finding similar elements

in separate prior art patents would be "contrary to statute and would defeat the congressional purpose in enacting Title 35." Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1 U.S.P.Q.2d 1593, 1605 (Fed. Cir. 1987). Thus, the Examiner cannot pick and choose among the individual elements of assorted prior art references to recreate the claimed invention. See, Azko N.V. v. United States International Trade Commission, 808 F.2d 1471, 1481, 1 U.S.P.Q.2d 1241, 1246 (Fed. Cir. 1986), cited with approval in SmithKline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 8 U.S.P.Q.2d 1468 (Fed. Cir. 1988). As stated in In re Sernaker, 702 F.2d 989, 217 U.S.P.Q. 1, 6 (Fed. Cir. 1983):

... prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings.

The difficult task of the Examiner is to not "fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." W.L. Gore & Associates v. Garlock, Inc., 721 F.2d 1540, 1533, 220 U.S.P.Q. 303, 312-13 (Fed. Cir. 1983).

Accordingly, Applicant respectfully submits that Claims 1-3 are patentable over the '162 patent and the '718 patent either alone or in combination under 35 U.S.C. §103(a). Withdrawal of the rejection is respectfully requested.

CERTIFIED COPY OF JAPANESE PRIORITY APPLICATION NO. 177468-1997

Japanese priority application no. 177468-1997 was received by the International Bureau of February 27, 1998. A copy of Form

PCT/IB/304 is enclosed for the Examiner's convenience. Please obtain this priority document directly from the International Bureau.

INFORMATION DISCLOSURE STATEMENT

The Examiner indicates that English abstracts for Japanese Patent Nos. 2401154B [sic] and 7-74260 B were not provided with the IDS. Applicants respectfully submit that the English abstracts were provided with the originally filed IDS on August 30, 1999. A copy of the English abstracts previously submitted is enclosed. Further, Applicants have highlighted the English abstracts of Japanese Patent Nos. 2401154B [sic] and 7-74260 B for the Examiner's convenience.

CONCLUSION

Applicant respectfully submits that Claims 1-3 and 5 are patentable over the art of record. Even though the initial claims in this important patent application were drawn to a new, useful and nonobvious invention, the claims have now been amended to increase their specificity and clarity of language. No new matter has been added.

As the Federal Circuit has observed:

The question of nonobviousness is a simple one to ask, but difficult to answer ... The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking

is quite improper when resolving the question of nonobviousness ...

Orthopedic Equipment Co. v. United States, 702 F.2d 1005, 217 U.S.P.Q. 193 (Fed. Cir. 1983).

A Notice of Allowance is earnestly solicited.

If the Examiner is not fully persuaded as to the merits of Applicant's position, or if an Examiner's Amendment would place the pending claims in condition for allowance, a telephone call to the undersigned at (727) 538-3800 would be appreciated.

Very respectfully,

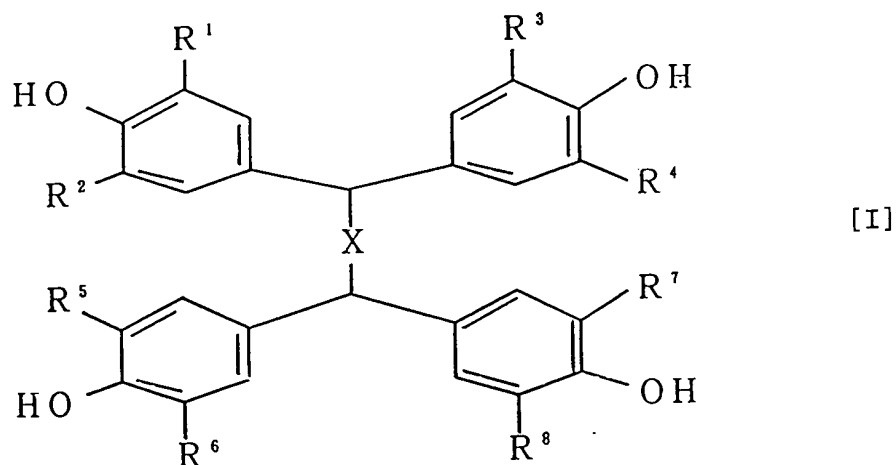
Dated: 3/8/01

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1576C77AmendedClaims010701

ORIGINAL AMENDED CLAIMS

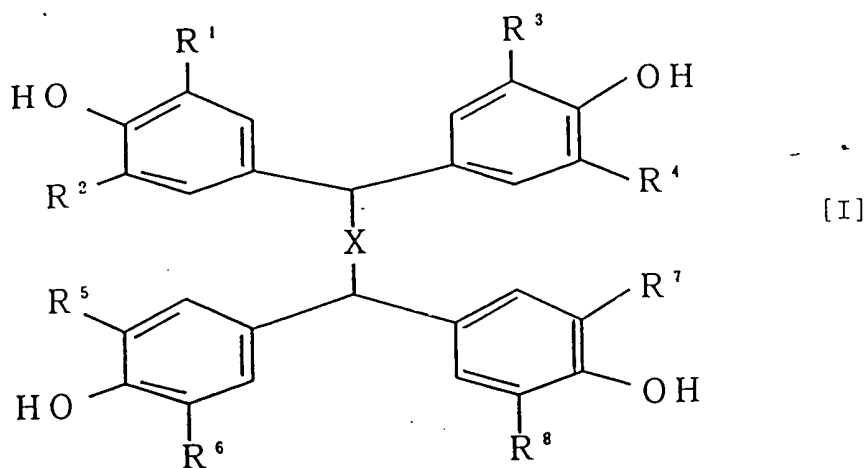
1. (Amended) ~~Curatives~~ A clathrate curative for epoxy resins comprising:
~~characterized by being a clathrate comprising a~~ a
tetrakisphenol compound represented by a general formula [I];



~~wherein~~ X represents $(CH_2)_n$, ~~wherein~~ n is 0, 1, 2, or 3, and R^1 to R^8 each represents hydrogen, a lower alkyl, optionally-substituted phenyl, halogeno or a lower alkoxy; and
~~alkoxy, and a~~ a compound other than the tetrakisphenol compound, which reacts
with the epoxy groups of an epoxy resin to cure the ~~resin~~.

resin, wherein the clathrate is present in the resin in a range of from 0.001 to 0.1 mole based on 1 mole of the epoxy groups.

2. (Amended) ~~Curing accelerators~~ A clathrate curing accelerator for epoxy resins comprising:
~~characterized by being a clathrate comprising a~~ a
tetrakisphenol compound represented by a general formula [I];

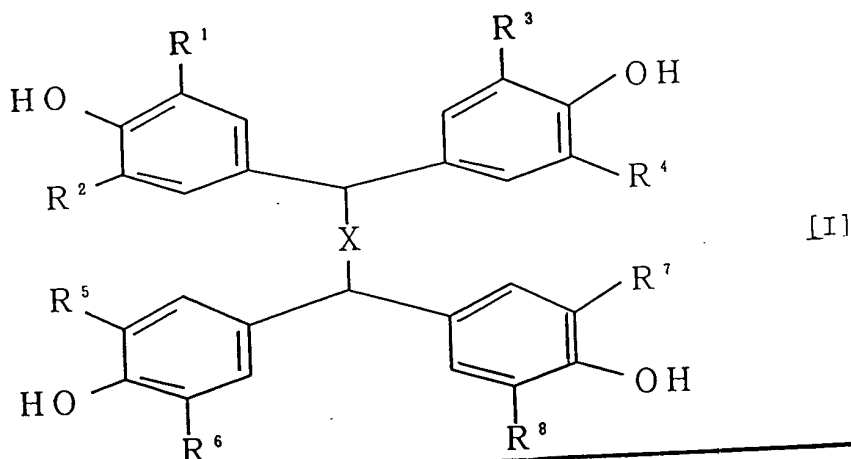


_____ wherein X represents $(CH_2)_n$, wherein n is 0, 1, 2, or 3, and R^1 to R^8 each represents hydrogen, a lower alkyl, optionally-substituted phenyl, halogeno or a lower alkoxy, and a compound accelerating the curing of a alkoxy; and ~~compound which reacts with the epoxy group of an epoxy resin to cure the resin.~~

a compound accelerating the curing of a compound other than the tetrakisphenol compound, which reacts with epoxy groups of an epoxy resin to cure the resin, wherein the clathrate is present in the resin in a range of from 0.001 to 0.1 mole based on 1 mole of the epoxy groups.

3. ~~(Amended) Epoxy resin compositions characterized by containing the clathrate comprising a tetrakisphenol compound represented by a general formula [I] and a compound which reacts with the epoxy group of an comprising: epoxy resin to cure the resin according to claim 1 and/or the clathrate comprising a tetrakisphenol compound represented by a general formula [I] and a compound accelerating the curing of a compound which reacts with the epoxy group of an epoxy resin to cure the resin according to claim 2.~~

an epoxy resin, said epoxy resin containing a clathrate curative, said clathrate curative being a tetrakisphenol compound represented by a general formula [I]



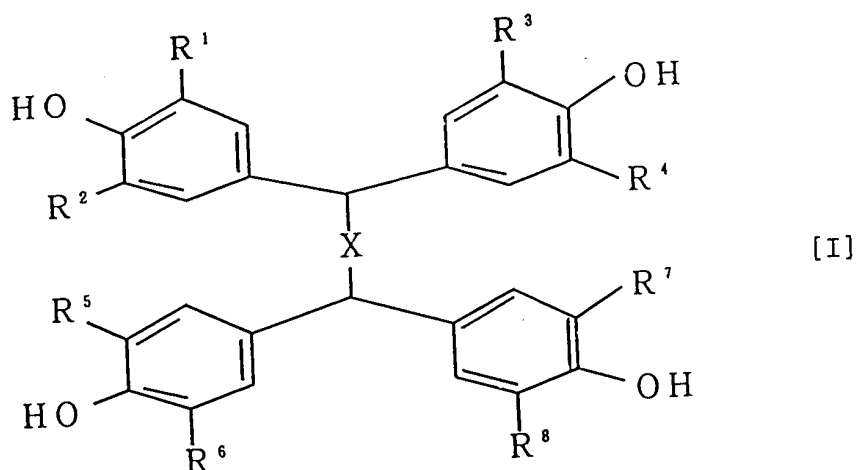
wherein X represents $(CH_2)_n$, n is 0, 1, 2, or 3, and R^1 to R^8 each represents hydrogen, a lower alkyl, optionally-substituted phenyl, halogeno or a lower alkoxy; and

a compound other than the tetrakisphenol compound, which reacts with epoxy groups of the epoxy resin to cure the resin, wherein the clathrate curative is present in the resin in a range

of from 0.001 to 0.1 mole based on 1 mole of the epoxy groups;

and/or

4. ~~(Amended) Epoxy resin compositions characterized by~~
~~containing a curative which reacts with the epoxy group of an~~
~~epoxy resin to cure the resin and~~ a clathrate curing
accelerator, said clathrate curing accelerator being a
tetrakisphenol compound represented by a general formula [I];



_____ wherein X represents $(CH_2)_n$, ~~wherein~~ n is 0, 1, 2, or 3, and
 R^1 to R^8 each represents hydrogen, a lower alkyl, optionally-
substituted phenyl, halogeno or a lower ~~alkoxy, in an~~
~~amount~~ alkoxy; and

a compound accelerating the curing of a compound other than
the tetrakisphenol compound, which reacts with epoxy groups of
the epoxy resin to cure the resin, wherein the clathrate curing
accelerator is present in the resin in a range of from 0.001 to
0.1 mole based on 1 mole of the epoxy groups.

_____ 5. (Amended) Epoxy resin compositions comprising:
an epoxy resin;

~~characterized by containing the~~ _____ a clathrate according to claim
~~1 which comprises a tetrakisphenol compound represented by a~~

~~general formula [I] and a compound which reacts with the epoxy group of an epoxy resin to cure the resin and the clathrate according to claim 2 which comprises a tetrakisphenol compound represented by a general formula [I] and a compound accelerating the curing of a the group content of the composition is groups,~~
Claim 1; and

a clathrate curing accelerator according to Claim 2;

wherein the clathrates are present in the resin in a range of from 0.001 to 0.1 mole based on 1 mole of the epoxy groups.

1576C77Aclaims.030701